## Amendments to the Specification

Please amend the paragraph beginning at page 7, line 20 to read as follows:

The invention further concerns the embodiments of such methods wherein the target analytes are enzymes or other proteins whose expression is characteristic of disease (e.g., bone specific alkaline phosphatase, aldose reductase, myoglobin, troponin I, etc.); or co-factors (including vitamins, such as vitamin B12, folate, $T_3$, $T_4$, TU, $FT_3$, $FT_4$, etc.), drugs or metabolites (including anti-cancer drugs, chemotherapeutic drugs, anti-viral drugs, non-steroidal anti-inflammatory drugs (NSAID), steroidal anti-inflammatory drugs, anti-fungal drugs, detoxifying drugs, analgesics, bronchodilators, anti-bacterial drugs, antibiotic drugs, diuretics, digoxin, anti-metabolites, calcium channel blockers, drugs for treatment of psoriasis, substances of abuse (e.g., cocaine, opiates, and other narcotics), pesticides, herbicides, etc.), cell-surface receptors (including protein-tyrosine kinase receptors (e.g., EGFR, PDGFR, MCSFR, SCFR, insulin-R, VEGFR, Trk, Met, Ron, Axl, Eph); or cell-surface receptors (e.g., receptors for TNF and related factors (e.g., Trk, Met, Ron, Axl, Eph, Fas, TNFRI, TNFRII, CD40, CD30, CD27, 4-1BB, LNGFR, OX40), serine-threonine kinase receptors (e.g., TGFβR), transmembrane 7 or G protein-coupled receptor families (e.g., CCR1, CCR2α, β, CCR3, CCR4, CCR5, CXCR1, CXCR2, CXCR3, CXCR4, BLR1, BLR2, V28, and class I and class II cytokines), receptors such as CD4, class I (hematopoietic cytokine) receptors (e.g., IL-1β, IL-2R β and γ chains, IL-3Rα, IL-5Rα, GMCSFRα, the IL-3/IL-5/GM-CSF receptor common β-chain, IL-4Rα, IL-7Rα, IL-9Rα, IL-10R, IL-11Rα, IL-13Rα, LIFR β, TPOR, OBR, IL-6Rα, gp130, OSMRβ , GCSFR, IL-11Rα, IL-12Rb1 and IL-12Rb2, GHR, PRL, and EPO), EGFR, PDGFR, MCSFR, SCFR, insulin-R, VEGFR, and class II receptors (e.g., IFNgRα, IFNgRβ, IL-10R, tissue factor receptor (TFR), and IFNαR1), etc.); or hormones (such as adrenaline (epinephrine), adrenocorticotropic hormone (ACTH), androgens (e.g., testosterone), angiotensinogen, antidiuretic hormone (ADH) (vasopressin), atrial-natriuretic peptide (ANP), calciferol (vitamin D3), calcitonin, calcitriol, cholecystokinin, chorionic gonadotropin (CG), dopamine, erythropoietin, estrogens (e.g., estradiol), follicle-stimulating hormone (FSH), gastrin, glucagon, glucocorticoids (e.g.,

cortisol and urinary cortisol), gonadotropin-releasing hormone (GnRH), gorticotropin-releasing hormone (CRH), growth hormone (GH), growth hormone-releasing hormone (GHRH), insulin, insulin-like growth factor-1 (IGF-1), leptin, luteinizing hormone (LH), melatonin, mineralocorticoids (e.g., aldosterone), neuropeptide Y, noradrenaline (norepinephrine), oxytocin, parathyroid hormone (PTH), progesterone, prolactin (PRL), renin, secretin, somatostatin, theophylline, thiiodothyronine T3, thrombopoietin, thyroid-stimulating hormone (TSH) , thyrotropin-releasing hormone (TRH), thyroxine (T4); or cytokines (such as the interleukins **("IL")** (e.g., IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-12, IL-13) or TNFα **("Tumor Necrosis Factor")**, VEGF **("Vascular Endothelial Growth Factor")**, GMCSF **("Granulocyte-Macrophage Colony-Stimulating Factor")**, IL-1β, FGFβ **("Fibroblast Growth Factor-β")**, INFγ **("Interferon-γ")**, EGF **("Epidermal Growth Factor")**, PDGF **("Platelet-Derived Growth Factor")**, MCSF **("Macrophage Colony-Stimulating Factor")**, SCF **("Stem Cell Factor")**, insulin, VEGF **(Vascular Endothelial Growth Factor)**, Trk **("Tyrosine Kinase")**, Met **("Hepatocyte Growth Factor")**, Ron **("Macrophage Stimulating Protein receptor")**, Axl **("ufo gene")**, Eph **("Ephrin")**, Fas **("Tumor Necrosis Factor Receptor Superfamily, member 6")**, CD40 **("Tumor necrosis factor receptor superfamily member 5")**, CD30 **("Tumor Necrosis Factor Receptor Superfamily member 8")**, CD27 **("Tumor necrosis factor receptor superfamily member 7")**, 4-1BB **(Tumor necrosis factor receptor superfamily member 9)**, LNGFR **("Low Affinity Nerve Growth Factor Receptor")**, OX40 **("Tumor necrosis factor receptor superfamily member 4")**, TGFβ**R** **("Transforming Growth Factor-Beta")**, CCR1, CCR2α, β, CCR3, CCR4, CCR5, CXCR1, CXCR2, CXCR3, CXCR4, **("Chemokine Receptors")**, BLR1, BLR2 **("Burkitt Lymphoma Receptor")**, V28 receptor **("Fractalkine receptor")**, or a receptor of IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-10, IL-12, or IL-13 **("Interleukins");** or antigens (such as those characteristic of *Chlamydia*, *Streptococcus pyogenes* Group A bacteria, *H. pylori*, or *M. tuberculosi*, hepatitis virus, rubella, CMV or immunodeficiency virus (HIV, FIV), prostate specific antigen, etc.); or antibodies to such antigens, or autoimmune immunoglobulins, thyroglobulin, anti-thyroglobulin, IgE, IgG, or IgM immunoglobulins, tumor markers (e.g., prostate specific antigen, AFP CEA, etc.).

Please amend the paragraph beginning at page 13, line 17 to read as follows:

This invention relates to methods for increasing the dynamic range and accuracy of assays in which a light signal is used to assay for the presence, absence, or concentration of a target ~~analyteThe~~ **analyte. The** invention further relates to apparatus capable of implementing such methods. The invention is particularly amenable for us in increasing the dynamic range and accuracy of binding assays.